

DRAFT

The Lewis Family Dean, Anna Mae and David D. Lewis Memorial Conservation Area

**Ten Year Area Management Plan
FY 2015-2024**



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OVERVIEW

- **Official Area Name:** The Lewis Family Dean, Anna Mae and David D. Lewis Memorial Conservation Area, #201302
- **Year Of Initial Acquisition:** 2012
- **Acreage:** 362
- **County:** Taney
- **Division With Administrative Responsibility:** Forestry
- **Division With Maintenance Responsibility:** Forestry
- **Statements of Purpose:**
 - A. Strategic Direction**

Manage for forested natural communities and the species that they support. Old fields on the area are managed to maximize recreational hunting opportunities.
 - B. Desired Future Condition**

The desired future condition of Lewis Family Memorial Conservation Area (CA) is a woodland/glade/forest landscape with some upland fields. In the bottomland field areas, emphasis will be placed on widening the riparian corridor to protect Bull Creek.
 - C. Federal Aid Statement**

N/A

GENERAL INFORMATION AND CONDITIONS

I. Special Considerations

- A. Priority Areas:** Lewis Family Memorial CA is located within the Bull Creek watershed, which is considered a high quality Ozark cold-water small river, Missouri Department of Natural Resources Outstanding State Resource Water and a Missouri Department of Conservation (Department) Fisheries Division priority watershed.
- B. Natural Areas:** None

II. Important Natural Features and Resources

- A. Species of Conservation Concern:** Species of conservation concern are known from this area. Area Managers should consult the Natural Heritage Database annually and review all management activities with the Natural History Biologist.
- B. Caves:** None
- C. Springs:** None
- D. Other:** None

III. Existing Infrastructure

- There is a primitive service road located on the area.
- Parking lot located on the west side of State Hwy 176

IV. Area Restrictions or Limitations

A. Deed Restrictions or Ownership Considerations: None

B. Federal Interest: Federal funds may be used in the management of this area. Fish and wildlife agencies may not allow recreational activities and related facilities that would interfere with the purpose for which the State is managing the land. Other uses may be acceptable and must be assessed in each specific situation.

C. Easements:

- 1) Missouri Department of Transportation right of way on State Highway F, 75 feet wide
- 2) Missouri Department of Transportation right of way on State Highway 176, 60 feet wide
- 3) KAMO transmission power line right of way, 100 feet wide on north boundary line
- 4) White River Electric Coop power line right of way, 30 feet wide located on west side of Highway 176
- 5) White River Electric Coop power line right of way, 30 feet wide located in the northeast corner, along the north boundary, parallel with the transmission line
- 6) White River Electric Coop power line right of way, 30 feet wide located on west side
- 7) White River Electric Coop power line right of way, 30 feet wide located on west side of property, parallel with Highway F on east side of highway
- 8) Village of Bull Creek sewer line easement, 20 feet wide in bottomland near Bull Creek running parallel with creek
- 9) Private driveway on west side, 12 feet wide for approximately 1,000 feet. No mention of recorded easement in deed.

D. Cultural Resources: Yes, records kept with Department Environmental Compliance Specialist. Managers should follow Best Management Practices for Cultural Resources found in Department Resource Policy Manual.

E. Hazards and Hazardous Materials: None observed.

F. Endangered Species: None observed.

G. Boundary Issues: None observed.

H. Other: An approximate 40-acre section of the property lies within the village of Merriam Woods on west side of Highway 176.

MANAGEMENT CONSIDERATIONS

V. Terrestrial Resource Management Considerations

Challenges and Opportunities:

- 1) Create a forest inventory of the area and a project plan to identify forest stand conditions and resource management needs.
- 2) Monitor forest stands for insects and diseases such as emerald ash borer, gypsy moth, thousand cankers disease and the walnut twig beetle.
- 3) Control exotic and invasive native species on the area such as sericea lespedeza, musk thistle, tall fescue, Johnson grass, reed canary grass and Eastern red cedar.

Management Objective 1: Complete forest inventory and project plan.

Strategy 1: A forest inventory will be conducted in Fiscal Year 2015.

Management practices identified in the inventory will be implemented according to the project plan schedule (Forestry).

Management Objective 2: Monitor forest for insect and disease outbreaks.

Strategy 1. Monitor forested stands for insects and diseases as regular area maintenance and boundary work are performed (Forestry).

Management Objective 3: Monitor area for exotic and invasive species.

Strategy 1: Regularly monitor the area for exotic and/or invasive species as maintenance and boundary work are performed (Forestry).

Strategy 2: Control exotic species using chemical, mechanical and cultural methods (Forestry/Wildlife).

Management Objective 4: Implement wildlife management techniques that will increase habitat quality for game and non-game species.

Strategy 1: Maintain upland fields using prescribed fire, chemical, mechanical or cultural methods (Forestry/Wildlife).

Strategy 2: Identify glade management units where use of prescribed fire is feasible, in order to provide nesting and brood-rearing habitat for turkey, quail, songbirds; and provide quality habitat for glade-dependent wildlife species (Forestry/Wildlife).

Strategy 3: Manage wildlife using statewide regulations (Protection).

Management Objective 5: Protect and expand stands of giant river cane to enhance the riparian corridor and provide nesting habitat for species of conservation concern.

Strategy 1: Allow giant river cane to naturally spread into adjacent open land areas (Forestry).

Strategy 2: Investigate need for expansion of giant river cane by transplanting plugs from existing cane patches on the area to new locations on the area (Forestry/Wildlife).

VI. Aquatic Resource Management Considerations

Challenges and Opportunities:

- 1) Lewis Family Memorial CA contains approximately 0.6 miles of Bull Creek frontage.
- 2) Lewis Family Memorial CA contains three first-order ephemeral streams which flow from the northern uplands of the property south into Bull Creek.
- 3) The property contains three fishless ponds.

Management Objective 1: Maintain, enhance, or expand the riparian corridors of Bull Creek to a minimum of 100 feet and the first-order streams to a minimum of 50 feet on both stream sides, where appropriate (Forestry/Fisheries/Wildlife).

Strategy 1: Allow vegetation to naturally regenerate the riparian corridors. Plant trees and shrubs within the corridors, where regeneration is not likely to succeed. Actively establish river cane stands within riparian corridors by transplanting existing cane. (Forestry/Fisheries/Wildlife).

Strategy 2: Monitor areas of stream bank erosion and address using Department stream stabilization guidelines (Missouri Department of Conservation, 2009), where appropriate (Fisheries).

Strategy 3: Implement stream Best Management Practices on all streams, according to the Department's *Watershed and Stream Management Guidelines for Lands and Waters Managed by the Missouri Department of Conservation* (2009) (Fisheries).

Strategy 4: Roads and trails will be managed according to appropriate Best Management Practices to minimize runoff and sedimentation into stream resources (Forestry/Wildlife).

Management Objective 2: Maintain three fishless ponds as habitat and breeding areas for amphibians; and as wildlife watering holes.

Strategy 1: Place fallen limbs of hardwood species along pond edges to provide cover and egg deposition sites for amphibians and reptiles (Forestry/Fisheries/Wildlife).

Strategy 2: Monitor ponds for aquatic invasive species and suppress any occurrences as needed (Fisheries).

VII. Public Use Management Considerations

Challenges and Opportunities:

- 1) The existing service roads are sufficient for most foot traffic on the area. If an access to Bull Creek is established on the southwest portion of the area, a foot trail would be recommended to access fishing and the lower portions of the area. Foot trails accessing Bull Creek should be limited to locations that minimize erosion potential.
- 2) There is an old house/building on the west access along Highway F that used to be the home of the donor's parents. The structure is sometimes used by a nesting species of conservation concern. The species is protected under Federal Law and, thus, the house will be left undisturbed.
- 3) There is an old homestead site located on the property that does have potential historical significance. It should be protected, but not have interpretive signage.
- 4) Working with surrounding private landowners would allow landscape-scale management for natural communities and the wildlife species they support.

Management Objective 1: Maintain public access to the area.

Strategy 1: Maintain parking lot on the area for public use.

Forestry staff will be responsible for routine service of the parking lot, including grading, replacing gravel and parking lot posts, maintaining signs and removing trash (Design and Development/Forestry).

Strategy 2: The existing service road will be maintained for area access and as a foot trail for the public (Design and Development/Forestry).

Strategy 3: Create and post informational signs along the service road to interpret and highlight restoration and management techniques (Outreach and Education).

Management Objective 2: Protect old homestead site and standing house.

Strategy 1: As required under Federal Law, the old standing house, which is currently used as a nesting site by a species of conservation concern, will not be removed from the property and will be protected from disturbance from March through July in order to protect the species (Wildlife/Forestry).

Strategy 2: Should future management activities potentially impact the old homestead site, an additional cultural resource survey would be required to determine historic significance (Wildlife/Forestry/Design & Development).

Management Objective 3: Ensure proper use by all area visitors.

Strategy 1: Periodically patrol this area to ensure compliance with area regulations (Protection).

Management Objective 4: Build relationships with neighboring landowners.

Strategy 1: Work with landowners in the vicinity of the Lewis Family Memorial CA to expand habitat management around the conservation area (Private Land Services/Forestry/Wildlife).

Strategy 2: Use the Lewis Family Memorial CA to showcase glade, woodland, and riparian natural community management practices to landowners (Private Land Services/Forestry/Wildlife).

VIII. Administrative Considerations

Challenges and Opportunities:

Much of this area is located adjacent to the village of Merriam Woods. There are a large number of adjacent landowners who border the area. Annual maintenance of boundaries is needed to prevent trespass.

Management Objective 1: Prevent encroachment and trespass on the area.

Strategy 1: Annually maintain boundaries by replacing signs and repainting lines with blue paint (Forestry).

MANAGEMENT TIMETABLE

Strategies are considered ongoing unless listed in the following table:

	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
Terrestrial Resource Management										
Objective 1										
Strategy 1	X									
Objective 4										
Strategy 2		X								
Objective 5										
Strategy 2		X								
Aquatic Resource Management										
Objective 1										
Strategy 1		X								
Objective 2										
Strategy 1	X									
Public Use Management										
Objective 1										
Strategy 3		X								

APPENDICES

Area Background:

The Lewis Family, Dean, Anna Mae and David D. Lewis Memorial Conservation Area (CA) was donated in 2012 by David D. Lewis. The area is comprised of 362 acres. A 40-acre portion on the east side of the conservation area is located in the village of Merriam Woods. Bull Creek flows through the area near the southern boundary. The area consists of a variety of habitats including upland fields, bottomland fields, riparian forest, glade, savanna and woodland.

The Lewis Family Memorial CA is within the White River Hills subsection of the Ozark Highlands Section. Nine Ecological Land Types are found on the Lewis Family Memorial CA (see list below). In addition, several areas of open land are present on the property; however, they are overgrown and require management to restore them to an early successional state. The glade communities on the area are also degraded and will require extensive management if they are to be restored.

The bottomlands on the area contain several patches of remnant native giant river cane. These stands will be protected, and possibly expanded, especially along the Bull creek corridor, to protect the river bank from erosion and to provide nesting habitat for Missouri species of conservation concern. The remaining riparian corridor will be protected and expanded to provide roost and perching sites.

Like many areas managed by the Department, the appearance of exotic species is an ever-present threat to management at the Lewis Family Memorial CA. Consequently, the area will be monitored regularly for their presence. Problem species known to exist on the area include sericea lespedeza, musk thistle, Johnson grass and reed canary grass.

Management strategies will include maintenance and enhancement of all open fields (not scheduled for reforestation) and woodland communities for ground nesting, brood rearing and browse areas. Conversion of the open fields to wildlife-friendly native species of grasses, legumes and small grain food plots may be considered.

The Lewis Family Memorial Conservation Area contains these Ecological Land Types:

Bottomland Forest Community (10 percent of area)

Dry-Mesic Upland Drainageway Forests

Mesic High Floodplain Forests

Mesic Footslope/High Terrace Forests

Woodland Community (45 percent of area)

Limestone/Dolomite Protected Backslope Mixed Oak Forests
 Limestone/Dolomite Upland Post Oak Woodlands
 Limestone/Dolomite Exposed Backslope Post Oak Woodlands
 Limestone/Dolomite Upland Glade/Woodland Complex

Glade Community (mapped as Glade/Woodland complex, 45 percent of area)

Limestone/Dolomite Protected Backslope Glade/Woodland Complex
 Limestone/Dolomite Exposed Backslope Glade/Woodland Complex

Current Land and Water Types:

Land/Water Type	Acres	Miles	% of Area
Upland Forest	193.4		53
Old Fields/Upland Fields	101		28
Bottomland Field	30		8
Glade	20		6
Bottomland/Riparian Forest	10		3
Streams	4		1
Highway	3.3		1
Impounded Water	0.3		<1
Total	362		100
Stream Frontage (first order and above)		0.61	

References:

Missouri Department of Conservation. (2009). *Watershed and stream management guidelines for lands and waters managed by the Missouri Department of Conservation*. Jefferson City, Missouri: Missouri Department of Conservation.

Maps:

Figure 1: Area Map
 Figure 2: Vicinity Map
 Figure 3: Aerial Photo Map
 Figure 4: Facilities Map

Figure 1: Area Map

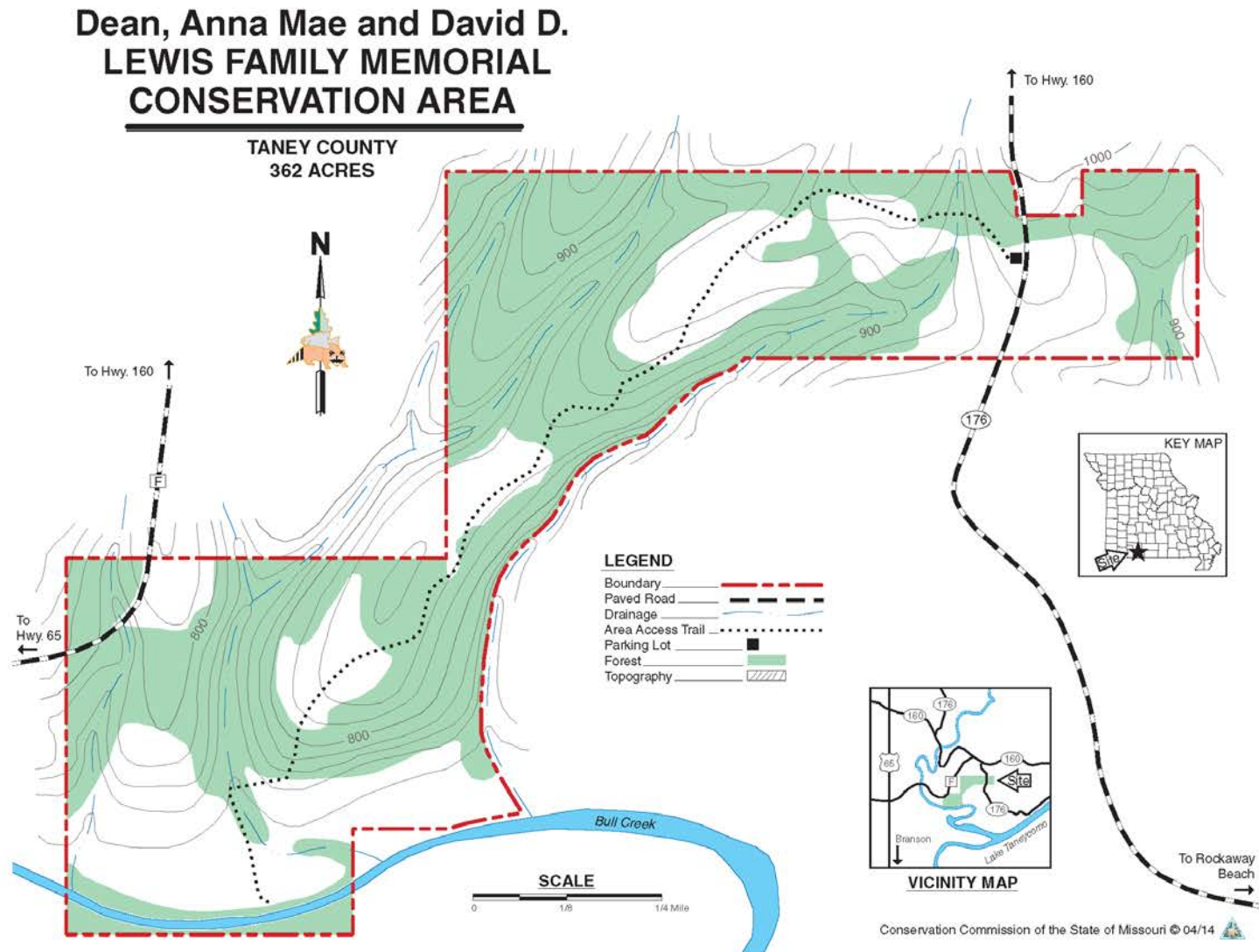


Figure 2: Vicinity Map

**Figure 2. Lewis Family Memorial CA
Vicinity Map**

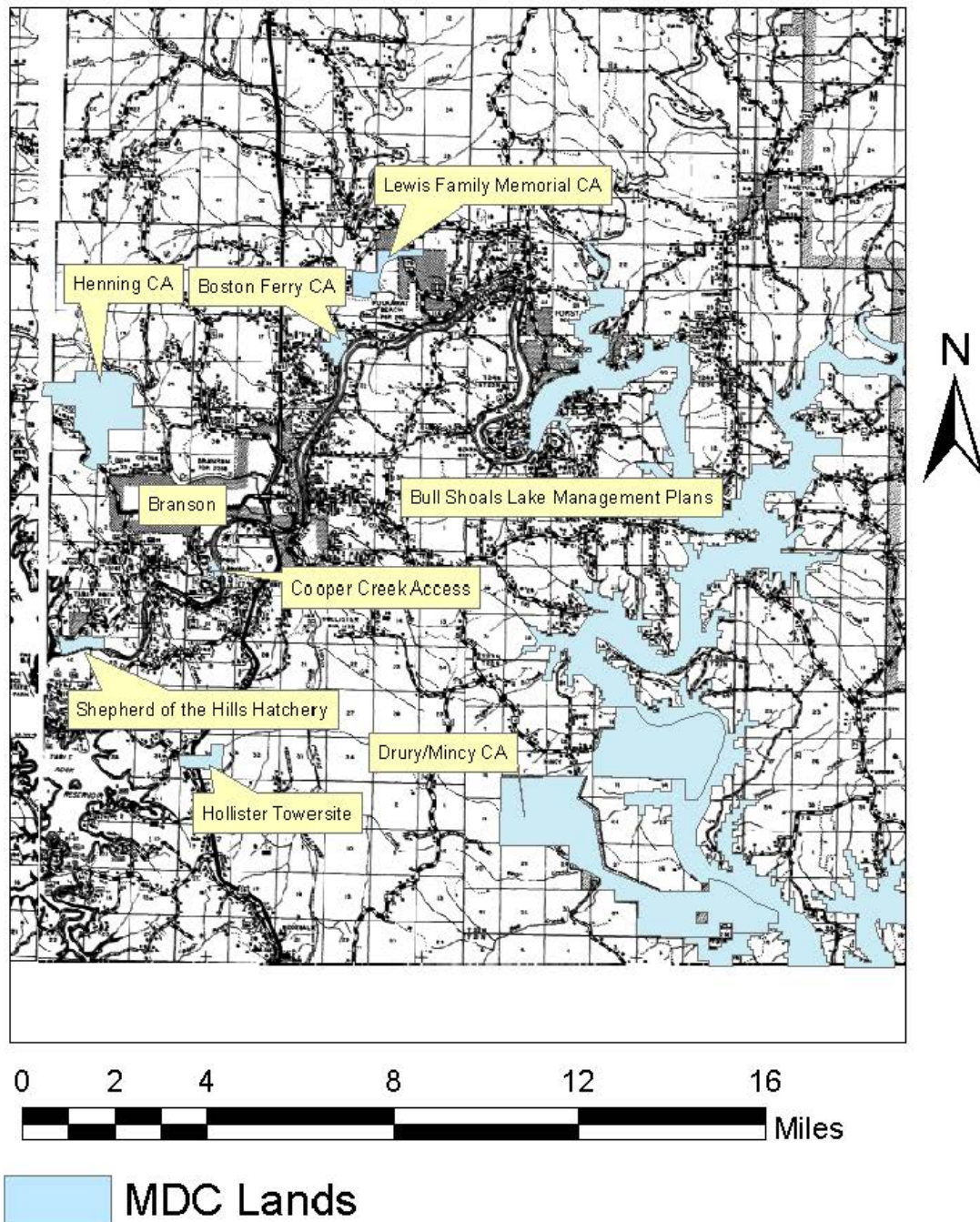


Figure 3: Aerial Photo Map

**Figure 3. Lewis Family Memorial CA
Aerial Photograph**

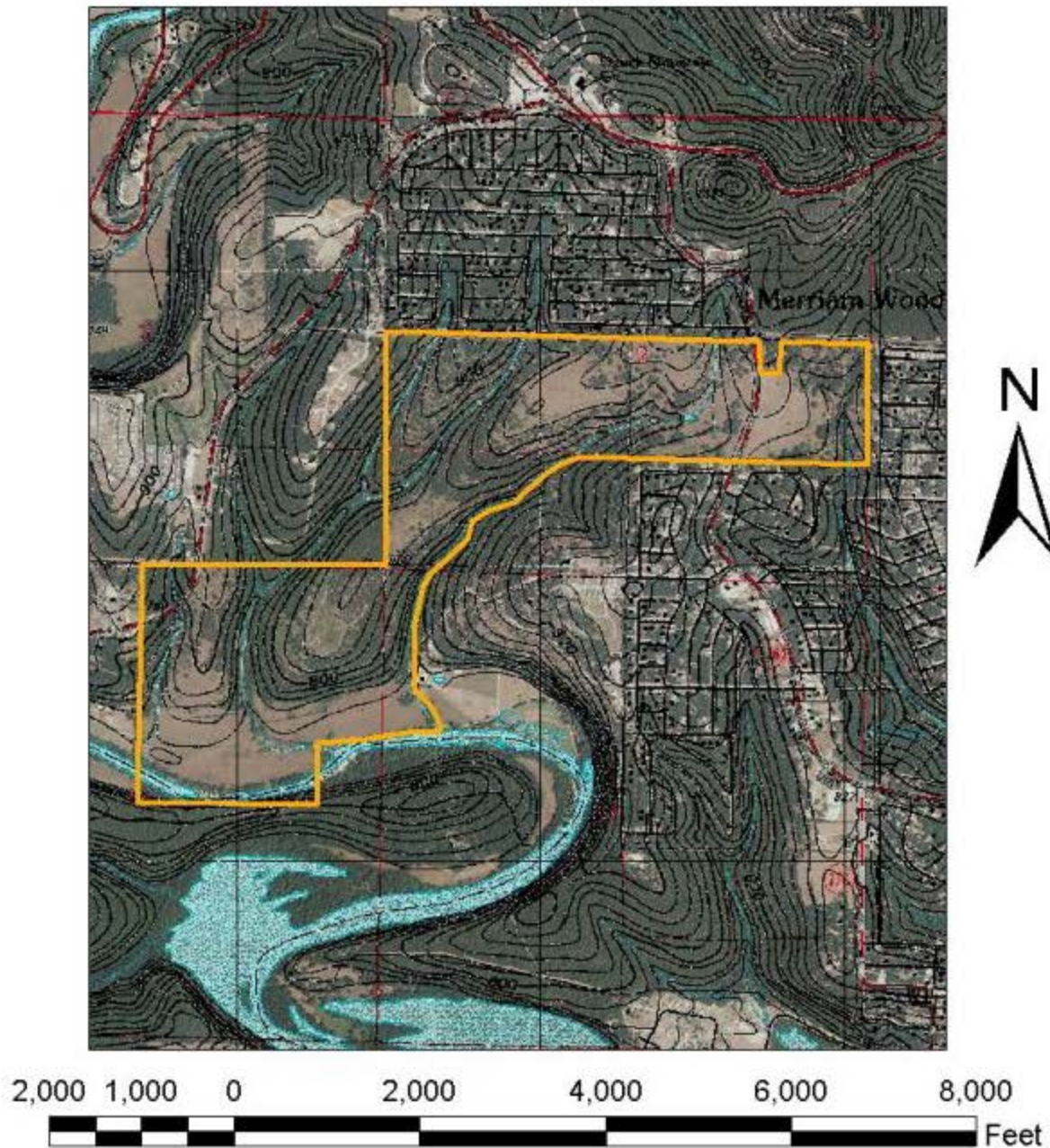
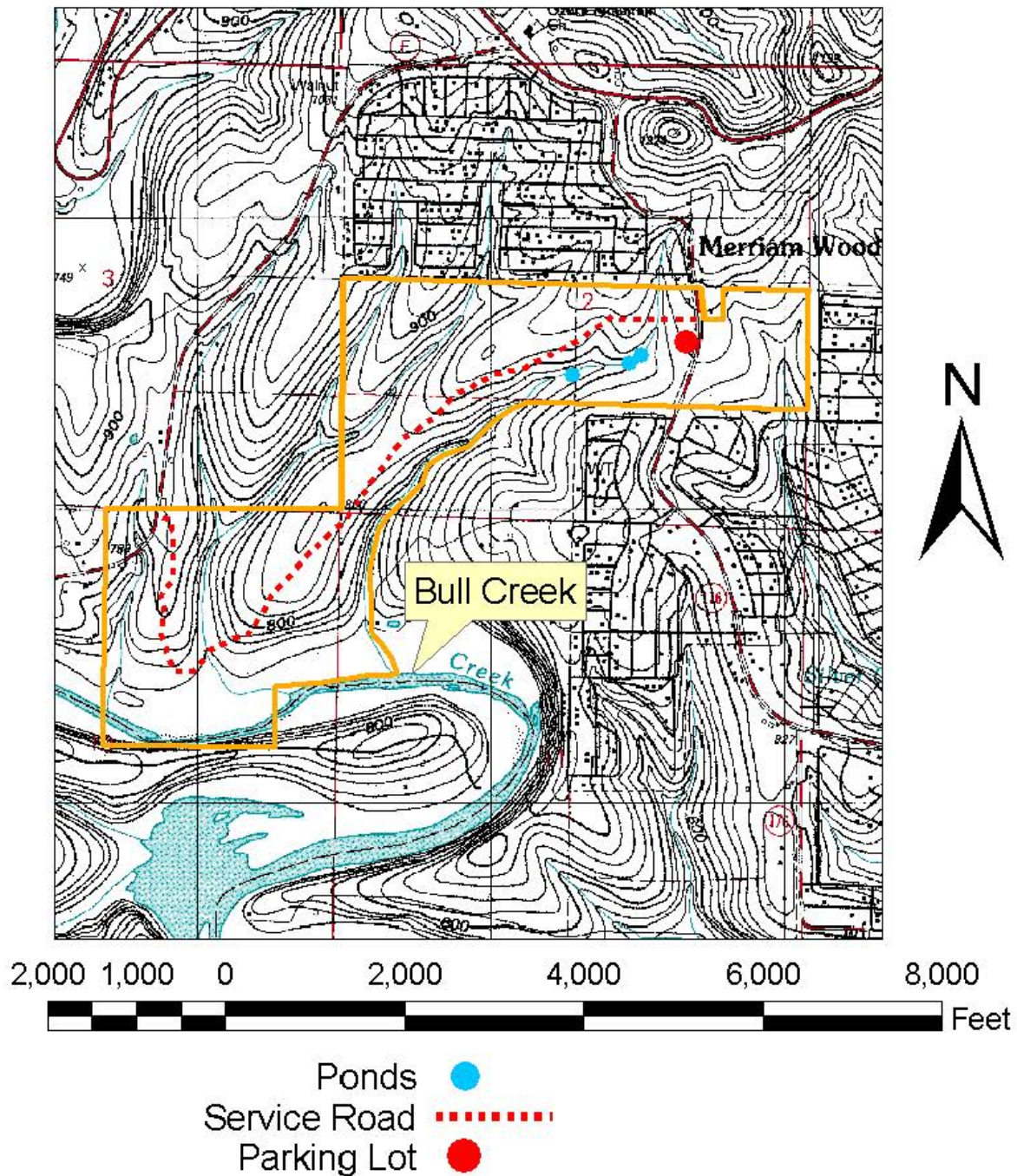


Figure 4: Facilities Map

**Figure 4. Lewis Family Memorial CA
Features and Facilities**



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